

## State of Kansas

Mike Hayden, Governor

# Department of Health and Environment Division of Environment

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Policy Memorandum #90-3

November 1990

FROM:

Karl W. Mueldener, P.E.

Director, Bureau of Water

SUBJECT:

PROHIBITION OF INJECTION OF INDUSTRIAL

WASTE INTO THE CEDAR HILLS FORMATION

#### PURPOSE:

To state the Bureau of Water policy for the prohibition of injection of industrial waste, excluding oil field brines regulated by the Kansas Corporation Commission, into the Cedar Hills (Glorietta) formation. The Bureau's objective is to protect the water and soil resources from a significant risk of contamination posed by Cedar Hills injection.

#### BACKGROUND:

The Bureau of Water administers the Class I underground injection control program developed pursuant to K.S.A. 65-171(d). A major part of the program is to ensure injected wastes are contained in the injection zone and the injected wastes or injection formation fluids do not migrate from the injection zone and contaminate the water or soils of the state of Kansas. Preliminary information developed by the Kansas Geological Survey (KGS) as part of the Dakota Aquifer Study Program indicates injected wastes and injection zone fluids may not be contained in the Cedar Hills formation through that part of West Central Kansas where the Cedar Hills lies stratigraphically in contact with overlying Cretaceous rocks which are non-confining. Because of the stratigraphic, lithologic, and geohydrologic characteristics of the Cedar Hills and overlying formations, KGS has recommended against the use of the Cedar Hills for injection. The Cedar Hills formation lacks adequate vertical separation from overlying formations containing usable water. In these areas, the KGS study has found evidence naturally occurring fractures in the formation overlying the Cedar Hills provide pathways for fluid to migrate from the Cedar Hills into the overlying Cheyenne and Dakota aquifers. The Bureau of Water concludes, based on the KGS information, that injection into the Cedar Hills formation of wastes regulated by the Bureau of Water represent an unnecessary risk to water quality which can be avoided.

### POLICY:

New requests for the injection of industrial wastes controlled by the Bureau of Water into the Cedar Hills formation shall be denied. Whenever feasible, existing Cedar Hills formation disposal wells shall be plugged and abandoned in accordance with appropriate state and federal regulations.

#### **EFFECTIVE DATE:**

The above policy will be in effect on 100.7, 90, and will remain in effect until withdrawal, revised, or modified by the Director.

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